Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently Amended) A method for adjusting the spectral response of a optical waveguide grating, the method comprising:

imparting a controlled ~~extension~~ bending force to a surface of a support member;

attaching an optical waveguide grating to the surface of the support member, a longitudinal axis of the grating in alignment with the direction of the controlled ~~extension~~ bending force;

removing the controlled ~~extension~~ bending force from the support member to create a compressive axial strain on the grating; and

altering the axial strain in the grating to adjust its spectral response.

Claims 2 - 6. (Cancelled)

Claim 7. (Original) The method of claim 1, wherein altering the axial strain in the grating to adjust its spectral response comprises applying tensile axial strain to the grating.

Claim 8. (Original) The method of claim 7, wherein the compressive axial strain created in the grating has a magnitude equal to or greater than a magnitude of the tensile axial strain applied to the grating to adjust its spectral response.

Claims 9-12. (Canceled)

Claim 13. (Original) The method of claim 1, wherein attaching an optical waveguide grating to the surface of the support member comprises attaching a grating having a length of 100 mm or greater.

Claim 14. (Original) The method of claim 13, wherein attaching an optical waveguide grating to the surface of the support member comprises attaching a grating having a length of 1 m or greater.

Claim 15. (Original) The method of claim 1, wherein attaching an optical waveguide grating to the surface of the support member comprises attaching the grating along its entire length.

Claim 16. (Original) The method of claim 1, wherein the optical grating comprises an optical grating selected from the group consisting essentially of: fiber Bragg gratings and long period gratings.

Claim 17. (Currently Amended) The method of claim 1, wherein ~~where~~ the support member is asymmetric about its neutral axis, and wherein imparting a controlled ~~extension~~ bending force to a surface of a support member comprises imparting a controlled ~~extension~~ bending force to the surface most distant from the neutral axis.

Claim 18. (Currently Amended) An apparatus for adjusting the spectral response of an optical waveguide grating, the apparatus comprising:

a support member to which a longitudinal optical waveguide grating can be attached, the optical waveguide grating being compressively axially strained by the support member; and

~~means~~ a bending moment applicator to bend the support member for altering the axial strain of the optical waveguide grating to adjust its spectral response.

Claim 19. (Original) The apparatus of claim 18, wherein the support member comprises a longitudinal beam.

Claim 20. (Canceled)

Claim 21. (Currently Amended) The apparatus of claim [[20]] 18, wherein the bending moment applicator applies a pair of bending moments.

Claim 22. (Original) The apparatus of claim 18, wherein the support member is configured for bending and rotating about its centroidal axis.

Claim 23. (Original) The apparatus of claim 18, wherein where the support member is asymmetric about its neutral axis.

Claim 24. (Currently amended) A method for pre-compressing an optical waveguide grating, the method comprising:

applying a controlled ~~tensile strain~~ bending force to a support surface of a support member;

attaching an optical waveguide grating to the ~~strained~~ bent support surface of the support member, a longitudinal axis of the grating in alignment with the ~~tensile strain~~ bending force;

removing the controlled ~~tensile strain~~ bending force from the support surface to create a compressive axial strain on the grating.

Claim 25. (Canceled)

Claim 26. (New) A method for adjusting the spectral response of a optical waveguide grating, the method comprising:

imparting a controlled extension to a surface of a support member, wherein the support member is asymmetric about its neutral axis, and wherein imparting a controlled extension to a surface of a support member comprises imparting a controlled extension to the surface most distant from the neutral axis;

attaching an optical waveguide grating to the surface of the support member, a longitudinal axis of the grating in alignment with the direction of the controlled extension;

removing the controlled extension from the support member to create a compressive axial strain on the grating; and

altering the axial strain in the grating to adjust its spectral response.